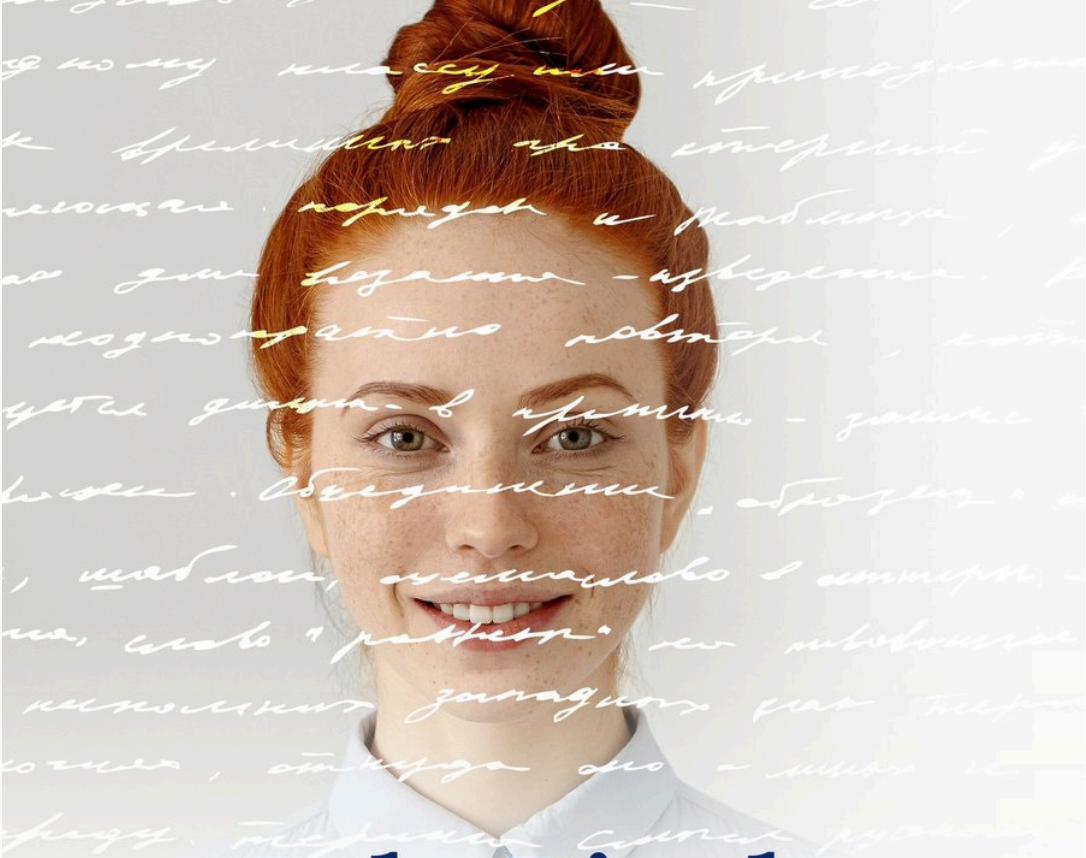


Ink, Pixels and Algorithms

From Magnifying Glass to Neural Networks

Computerized Handwriting Analysis:
A New Scientific Face for Traditional Graphology

RODRIGO FARÍAS VELOSO
Psychologist and graphologist

Grafos | GrafoMetrics
Tecnología de Evaluación Psicológica Avanzada

Ink, Pixels and Algorithms

From Magnifying Glass to Neural Networks

Computerized Handwriting Analysis: A New Scientific Face for Traditional Graphology

RODRIGO FARÍAS VELOSO

Grafos | GrafoMetrics
Tecnología de Evaluación Psicológica Avanzada

Ink, Pixels and Algorithms. Graphology 3.0.
From Magnifying Glass to Neural Networks

© 2026 Rodrigo Farías Veloso
Instituto de Ciencias del Grafismo Grafos · Santiago, Chile
grafos.cl

First digital edition: November 2026. Translated from the Spanish original, *Grafología 3.0. Tinta, píxeles y algoritmos*.

All handwriting samples reproduced in this book have been anonymized and are published with the consent of the people assessed. None of them allows the writer to be identified. The names that appear within the handwritten texts are characters from stories.

GrafoMetrics is a support tool for professionals: it measures, and it shows what it measures. The second-order scales presented here are experimental. Conclusions about a person always belong to the graphologist or psychologist who assesses them, and should never rest on a single instrument.

GRATITUDE

Acknowledgements

This book has a single author on the cover, but it was written with the help of many people.

To **José Javier Simón**, my teacher and my friend, who convinced me that graphology could be orderly and scientific. Without that conviction, this book would not exist.

To **Amparo Botella**, for her wisdom and her guidance. She told me, with complete certainty, that doing this well required "seriousness above all, and a sense of humor." I have tried not to forget either one.

To **Salvador Martínez**, who put me in touch with José Javier Simón and welcomed me into his home in Spain. He reconnected me with the great Spanish-speaking graphological community, from which I had until then been far away. And to the community of the **Michon Awards**, which week after week keeps alive the flame of the study of handwriting. Without them, this discipline would slip a little further into oblivion every day.

To my dear and much-missed teacher **Francisco Viñals**, of the Autonomous University of Barcelona. I owe him a deep under-

standing of what graphoanalysis is, and I owe his work the great contribution of transactional graphoanalysis.

To **Óscar Martínez**, who believed in me when few did and opened the door for me to bring graphology to thousands of people through Groupon.

To **Claudio Stöckle**, my brother, who believed in the project when we won Start-Up Chile. Although he did not stay on, because he moved to Australia, he helped it take off.

To **Christopher Suárez** and **Diego Díaz Espinosa**, who accompanied me in the research told in these pages.

To **Sebastián Urzúa**, my student, who opened the doors of Audiomúsica for me. There we carried out graphology studies that surprised me, and we found one of the least intuitive associations of my career: the salespeople who sold the most were the ones who wrote the fewest lines. It was not a lack of effort; they were the most active and action-oriented. That was not in any manual.

To the corporate clients who trust me with personnel selection, and who have adopted GrafoMetrics to assess their candidates. Thank you for entrusting me with such a great responsibility.

To all my students, who have taught me as much as I have taught them and who motivate me every day to make graphology a better and more scientific practice.

To my patients, who have taught me far more than I expected. Thanks to them I have been able to bring graphology into my everyday work as a psychologist and to see with my own eyes what no manual could have taught me.

Above all, to my parents and to my Titi, my second mother, for the love, support and understanding they gave me in this madness of studying graphology and making it a way of life. I also owe my Titi my enthusiasm for French: she helped me translate books until I fell in love with the language and could read graphology in its original tongue.

To **Sara**, my wife, who never stopped asking me how scientific graphology really was. With love, and without concessions, she encouraged me to prove it, so that we could use it rigorously in assessing our bariatric patients. She was also the one who convinced me that this research deserved to be known.

To **Antonella Luz**, my little girl, who is my sunshine. I hope that one day you will read these words and know what Daddy was doing during those long hours away from you, unable to play with you: he was trying to uncover the secrets of human handwriting.

And to the researchers who one day read this book. I hope you will take up the baton and carry the study of handwriting, as old as writing itself, to the heights that today's world, and tomorrow's, demand.

CONTENTS

Table of contents

Introduction · What amateurs do with NASA's data

PART ONE

Graphology 1.0 · *The magnifying glass*

1 The magnifying glass and the abbot

INTRODUCTION

What amateurs do with NASA's data

Today, volunteers who never studied astronomy go through NASA's public data and help discover planets orbiting other stars. Neural networks trained on that same data have found worlds no human eye had ever seen. Image-analysis and machine-learning techniques that only a few years ago lived in laboratories have become a toolbox that anyone with curiosity and patience can open.

Now let me ask you a question. What if we were still looking at the sky through Galileo's telescope? We would see Jupiter as a tiny dot with four moons around it, and we would be happy. Today we see it with its storms, its bands and even its auroras. It is not that Galileo looked badly. His instrument simply reached that far and no further.

The same thing happens with graphology. Classical graphology was not wrong: it was our Galileo's telescope. With it we learned to recognize in handwriting the patterns, traits and personality tendencies that people do not fully control, because they write thinking about what they are saying and not about how they are writing it. That is its greatest richness, and it is exactly what makes it so valuable today: handwriting leaves a trace of the unconscious that is very hard to fake. I

am convinced that no machine will replace that, because what we study is not the machine but the human being in all their complexity. What can change, and is changing, is the instrument we look through.

This book tells what happens when that same toolbox is applied to something much closer to us than a star a thousand light-years away: handwriting. And to tell you about it, I have to start at the beginning. Not with a machine, but with a question.

It all began with a question

I have been teaching graphology for many years. More than nine thousand people have taken my courses, and that has given me something precious: students who have left me speechless.

One of them said to me one day: "Professor, couldn't you give us something to organize the analysis? I get stuck on the gestures and can't get out."

He was right. A graphological analysis has so many things to look at that it is easy to get lost. So I did something very humble: an Excel spreadsheet. A checklist, nothing more. Each trait in a row, so you could look at it, write it down and not forget any of them.

In that spreadsheet I gathered the best of what I had learned from my teachers. The order of José Javier Simón, which I loved. The classical schools of Vels, of Viñals, of Father

Moretti. And something from depth psychology: Jung's psychological types, which I had studied thoroughly when I was certified in the MBTI psychological type inventory. I did not invent anything new. I brought it together and integrated it. That is why I called it **Integrative Graphoanalysis**. That, after all, is how science is done: standing on the shoulders of many people who worked before you.

When is it an 8 and when is it a 7?

When I did the postgraduate program in Graphopsychology at the Autonomous University of Barcelona, I learned that other graphological analysis grids already existed, strategically called "graphoanalysis grids" to emphasize the objectivity of their recording. But the graphoanalysis grids I had learned from Vels and Viñals had an uncomfortable problem. They looked objective, but they hid a tremendous amount of subjectivity: each trait had to be rated with a number depending on whether or not it was a dominant, and that number was set by the graphologist's eye.

In graphology we talk about **dominants**: the traits that stand out most in a handwriting and that guide the whole interpretation. They are the skeleton of the personality. Some of my teachers weighted them with a score: from 3 to 6 if the trait was subdominant, and from 7 to 9 if it was dominant. And I asked Francisco Viñals, my professor, the same question again and again:

"Professor, when is it an 8 and when is it a 7? If black predominates in a handwriting, that's a 9. But how much is a 6?"

That question never had an answer. Not because Viñals did not know graphology, because he knew a great deal, but because with a magnifying glass and a trained eye there was no way to answer it. Keep that question in mind, because this book, in a way, is its answer.

The night I dove into the code

I have taught graphology in face-to-face classes since 2002. In 2005 I dared to try something new: an online course. Back then almost nobody knew how to teach from behind a screen, so I had to improvise a little. My rudimentary virtual classroom consisted of my course presentations turned into images made with Flash, some PDF readings, a few live classes over Skype (two programs that no longer exist, although some readers may remember them) and an ingenious multiple-choice system that graded itself, the work of a programmer friend.

It was what marketers call a bamboo business, a well-studied model: bamboo spends years putting down roots underground with nothing visible on the surface, and then suddenly grows several meters in a few weeks. In four years, twenty people took my course. The classroom worked reasonably well, with its limitations.

Until one day I had the idea of partnering with Groupon, the discount-coupon site. Nobody gave a graphology course much

of a chance. It turned out to be a commercial success: **more than four hundred people bought it on the first night alone**. As I learned later, it was the first online course Groupon sold successfully anywhere in the world, and the model ended up being replicated in other countries. The managers could not believe the numbers they were seeing. Humble graphology, it seemed, interested people far more than they had imagined.

The next morning, my inbox was overflowing. Dozens of new students were asking for explanations: the links did not work. Twenty people entering a classroom is not the same as four hundred at once. And my programmer friend was so introverted that, almost as a rule of life, he never answered the phone in less than a week.

There was no time to wait. In desperation I opened the classroom's code without really knowing what I was looking at. I tried, I got it wrong, I tried again, and in less than a week the classroom was working again. I confess I did not fully understand what I had fixed.

But that week planted an idea: if I had an online teaching business, I had better learn to program. That is how my interest in computing was born. Not as an academic vocation, but as an urgent necessity.

I never imagined where it would take me. The crossing of two such different disciplines, one ancient and somewhat mysterious like graphology and the other made of logic and mechan-

ics like computing, opened frontiers I could never have suspected.

The first thing I did with what I had learned was go back to my spreadsheet. And an idea appeared: what if that Excel spreadsheet became an application? A program where you entered the traits in order, which weighted only the dominants and which, at the end, produced a report with charts. I built it. It worked. It was faster, more orderly, cleaner. With a little practice, entering a complete handwriting sample took no more than five minutes.

But there was still another question in class.

White and black

It was a discussion that never ended: "Professor, in this handwriting, does white or black predominate?"

If you are not a graphologist, let me explain it in one sentence: **black is the person speaking; white is the person thinking**. A page heavily loaded with ink tends to go with someone more expressive, more turned toward the outside. A page with a lot of free space, with someone more reserved, who takes their time. It is not the only indicator, of course, but it is one of the most important.

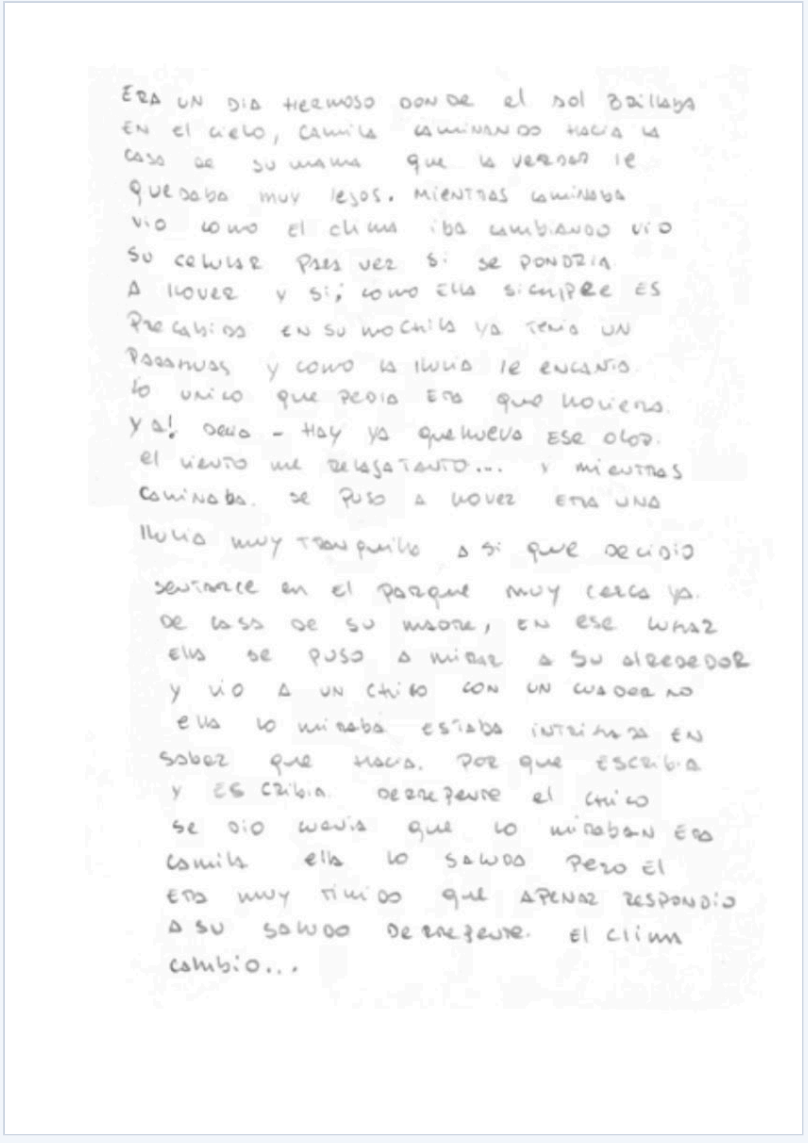
The problem is that every graphologist saw something different. The answers were more emotional than objective, and the discussions became Byzantine.

Now it's your turn.

Look at the handwriting on the next figure. Don't read it: look at it as a whole, as if it were a blot. And before you turn the page, answer: **what percentage of this page do you think is covered in ink?**

Write your number down. Seriously, write it down.

FIGURE 1



Era un dia hermoso donde el sol brillaba en el cielo, Camila caminando hacia la casa de su mama que la vecina le quedaba muy lejos. Mientras caminaba vio como el clima iba cambiando vio su celular pues vez si se pondria a llover y si; como ella siempre es precabida en su mochila ya tenia un paraguas y como la lluvia le encanta lo unico que pedia era que lloviera. Y a! decia - Hay ya que llueva ese olor. el viento me relaja tanto... y mientras caminaba. se puso a llover era una lluvia muy tranquila a si que decidio sentarse en el parque muy cerca ya. de casa de su mama, en ese lugar ella se puso a mirar a su alrededor y vio a un chico con un cuaderno ella lo miraba estaba intrigada en saber que hacia. Por que escribia y es escribia detrepente el chico se dio cuenta que lo miraban era Camila ella lo saludo pero el era muy timido que apenas respondio a su saludo de repente. el clima cambio...

What percentage of this page is covered in ink? Write down your answer before you continue.

What the graphologists answered

I asked this same question in an open class for graphologists, with about a hundred people signed up from several countries. The answers started arriving in the chat: 6, 30, 40, 45, 50, 60, 70.

Imagine that. We were supposedly all graphologists, looking at the same page, and no two opinions were the same. The person who came closest said 8 %.

And don't worry if your number was far off. I got it wrong at first too. What you just experienced is not your mistake: it is the limit of an instrument, and that instrument is the human eye.

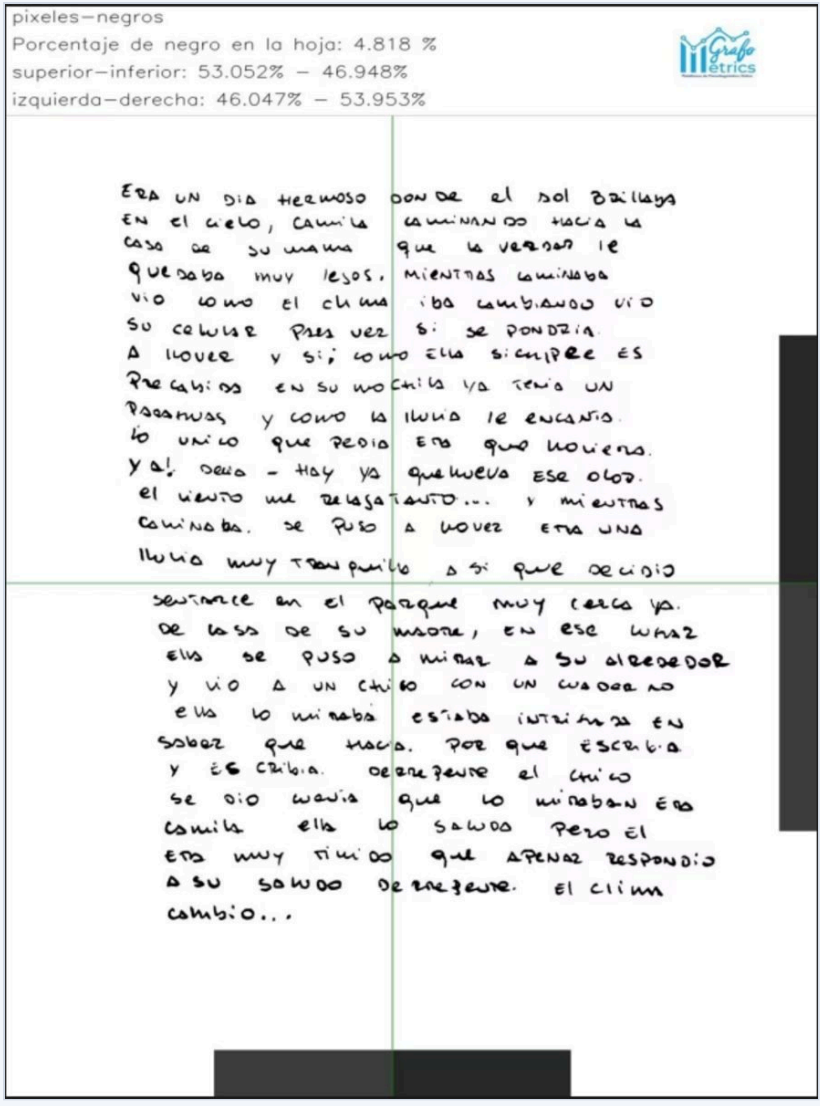
So we counted the pixels

Before going on, a word you are going to read many times in this book: **pixel**. When you scan a page, the computer divides it into a grid of millions of tiny dots, like a mosaic of tiles so small you cannot see them with the naked eye. Each tile is a pixel. And every pixel can be counted.

So I wrote a small program that separated the ink from the paper and counted how many pixels were black.

The page you just saw has **4.8 %** black pixels.

FIGURE 2



The same page, binarized by the software: 4.818 % black pixels. The lines divide the page into quadrants to show where the ink is concentrated.

When I saw that result for the first time, I was sure the software had a bug. 4.8 %? The page looked full of ink. I checked the program. I ran it again. And no: the software was working perfectly. **The human eye had fooled us.**

And there was something more: if I send that same page to a colleague in Ecuador or in Spain, the program will give them exactly the same number. That is what we are looking for when we talk about science. How millions of pixels are counted in seconds, and why the eye inflates the ink, I explain calmly in chapter 4.

That was what truly dazzled me. Just as astronomy studies the immensely large, here a door was opening to study the immensely small: the pixels and graphic micro-gestures that, added together, sketch a personality. A person's nonverbal language, frozen on paper.

The birth of percentiles

But another question came up, and this one was harder. What does 4.8 % mean? Is it a lot? Is it a little?

A number on its own says nothing. Then I remembered my statistics classes: what had to be done was to compare that page with many others. To turn the raw score into a **percentile**, a ladder from 1 to 100 that tells you which rung a person is on compared with everyone else.

We compared that page with the handwriting of about 940 people. And the result was that the 4.8 % corresponded to the

67th percentile. In other words, roughly two out of every three people in the sample write with less ink than she does.

Do you see what that means? The colleagues who answered "70" were not so lost after all. Their intuition about the *position* of that handwriting was reasonable. What the brain could not do was make the leap from impression to exact measurement. That is, in one sentence, the difference between looking and measuring.

And the percentile brought something else. Each trait is measured in a different unit: ink in percentage, slant in degrees, margins in centimeters, size in millimeters. Until then it was impossible to compare them with each other. With percentiles, for the first time, all the traits spoke the same language. And a trait above the 70th percentile in a handwriting clearly stands out from the rest of the population.

That has a name in graphology: a **dominant**.

After so many years, I had an answer to the question I had asked Viñals so many times. When it is an 8 and when it is a 7 no longer depended on anyone's impression. It depended on how people really write.

I wasn't the first

I was convinced I was the first to look at handwriting with a computer. I wasn't. For decades, researchers in the United States, Russia, Iran, India and many other places had been trying to get a machine to read and measure handwriting. One of

them, the Russian Yuri Chernov, was asking exactly the same questions I was. In this book you are going to meet them.

What we did do was take that small revelation of the black pixels and carry it much further. Then came a team, a grant from the Chilean State, a name (first Inksight, then GrafoMetrics) and hundreds of new measurements. But it all started there: with an Excel spreadsheet, an unanswered question and a page that looked full of ink.

The seed I thought was lost

Measuring was only half the journey. The other half was the question graphology has always been asked, and rightly so: do those measurements say anything about the person?

To answer it, we designed a study under controlled conditions. Dozens of people wrote a story and completed validated psychological tests, the kind used in clinics and companies around the world. Then we crossed the two worlds: what the software measured in the handwriting and what the tests said about the personality.

For years I told my classes that the study existed. But its tables were nowhere to be found, and I came to think they were lost. While I was finishing this book, I found them in an old archive.

And they say something worth telling calmly. Some of the traits that graphology described more than a century ago, now measured by a machine, were associated with personality beyond what chance can explain. Not all of them, and not as

strongly as one would like. But it is the first seed of evidence graphology needed, and in chapter 11 I show it to you in full: what appeared, what did not and what remains to be done.

What's ahead in these pages

Today GrafoMetrics calculates more than two hundred indicators from a handwriting sample: spacing, margins, directions, forms, connectedness, signature and stroke pressure. Of these, 40 already have a population norm on the first page and 53 on the second. Each measurement is compared with that of a real population and drawn on top of the handwriting itself, so the graphologist can see exactly what was measured. There is no black box here. The software does not decide: it measures. The graphologist decides.

In these pages I am going to show you what that looks like: real, anonymized samples with their measurements drawn on top, like the illustrations in a botany book. You are going to see what we discovered with real data. And you are going to see something that, in our tests, artificial intelligence still cannot copy: the shape of a letter is easy to imitate, but the pulse of the hand that wrote it is much harder to forge. I will also tell you where that finding fails, because a result that only shows its hits is not science: it is advertising.

And I am going to tell you where the ceiling is. Human handwriting, like the weather or personality, is such a complex system that measuring it with rules has a limit. To go further, we have to change paradigms: stop programming rules and start

teaching a machine with examples. That is the next frontier, and it is closer than it seems.

That is a promise of method, and I want to be clear about the rest.

You will not find here the fantasy that a sign in a letter reveals who you are. The effects we have measured are small: useful for understanding populations and for guiding a professional's eye, not for deciding a person's fate. I will tell you what worked and also what did not, including an experimental scale that improved on everything we could measure within the handwriting but has not yet found its echo outside it. I believe that honesty is the most valuable thing a discipline that has suffered so much from overpromising can offer today.

Today, when artificial intelligence is everywhere, anyone with curiosity can investigate whatever they want, and everything that has already been done can be improved. That is what we are doing. Others chose to predict how proteins fold or to hunt for elusive supernovae. I chose handwriting.

Three eras, one protagonist

The protagonist of this book is not me. It is the study of handwriting, which has lived through three eras.

The first, the era of the magnifying glass: the human eye, intuition and patience. The second, the era of the spreadsheet and the computer: the first attempts to measure, organize and compare. The third, the era of the algorithm and artificial in-

telligence, which we are entering now and whose limits we do not yet know.

Calling it "Graphology 3.0" is a license of enthusiasm. It does not mean everything has been solved, but that something has changed forever in the way we look. And it is not a farewell to the graphologist: it is the moment when today's graphologist, with better tools, sees further than yesterday's. Like someone who trades Galileo's telescope for one that shows them the auroras of Jupiter.

If you have ever wondered whether handwriting can be studied with the seriousness of a science, this book is an invitation to look at the evidence with me. And if you are already a graphologist, a psychologist or simply a curious person, I invite you to something simpler and more exciting: to turn the page over.

RODRIGO FARÍAS VELOSO

Santiago, Chile, November 2026

Enjoying it?

The introduction is only the beginning. Get the full book at the preorder price and receive it by email.

I want the full book

Reserve without paying · Preorder: US$ 9.99 · €9.99

PART ONE

Graphology 1.0

The magnifying glass

For more than a century, studying handwriting meant a sheet of paper, a magnifying glass and a trained eye. That is how the discipline was born, and how its founders ran into their first great limit.

CHAPTER 1

The magnifying glass and the abbot

Before I tell you the story, let me suggest a small experiment. Take a pencil and a sheet of paper. Write your full name, as you would on any form. Now write it again, but this time in the script you were taught in your first years at school, letter by letter, just as it appeared in your handwriting copybook.

Did you notice the difference? The first time your hand flew on its own. The second time you had to think about every curve, and it probably came out slower, stiffer and quite a bit uglier.

What you just felt is the starting point of graphology.

Handwriting is a gesture

Writing is a learned skill. At first it costs us enormous effort: we have to think about every letter, every connection, every line. But with practice the movement becomes automatic, until one day we stop thinking about how we write and think only about what we write. From that moment on, the hand works on its own.

And here comes the interesting part. From the very first day, each person starts modifying the copybook model they were taught. One letter leans a little more, another shrinks, the margins widen or narrow, the pressure becomes firm or light. Nobody decides to do it. It simply happens, and it happens differently in each person. That is why your handwriting is as much yours as your fingerprint.

Graphology studies precisely those deviations from the learned model. They are unique motor patterns, and their form and dynamics make it possible to formulate hypotheses about the personality of the writer.

It works much like nonverbal language. When you talk with someone, you don't just listen to their words: you also watch their gestures, their posture, the tone of their voice. Often that says more than what the person tells you. Handwriting is the trace of that nonverbal language, except that instead of vanishing into the air, it stays fixed on paper.

FIGURE 3

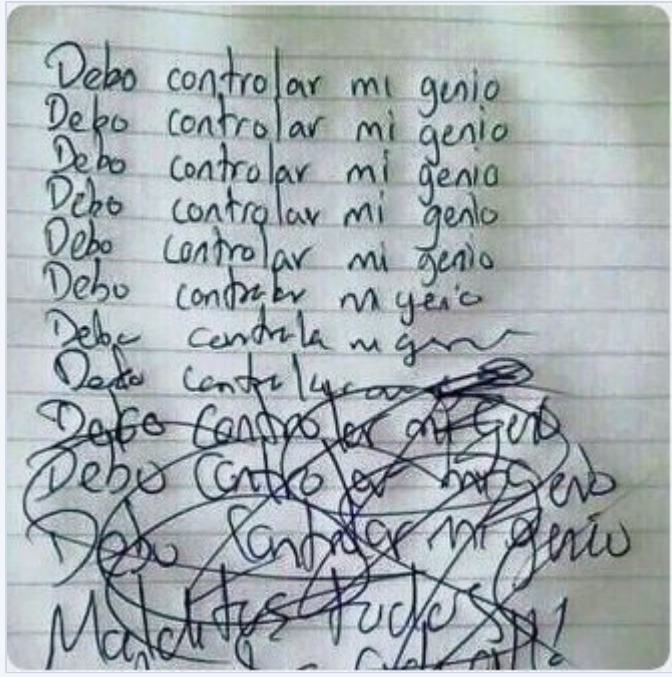


Handwriting is the trace of a movement: as if a dancer left her path drawn on the paper.

Think of a dancer moving across a giant sheet of paper. If the tip of her shoe left a mark of ink, the final trace would tell how she danced: where she hesitated, where she sped up, where she stopped to catch her breath. Handwriting is exactly that: the trace of a movement.

And that movement is not unrelated to what we feel. Look at this other figure. It has been circulating on the internet for years, and I don't know who wrote it, but I know of no more charming way to show how an emotion gets into the hand.

FIGURE 4



"Debo controlar mi genio" ("I must control my temper"). An anonymous image that circulates on the internet: the text says one thing and the stroke says another.

The first lines are tidy and obedient. Little by little the letters fall apart, the pressure increases, the lines become disordered, and in the end patience gives up. What the person writes says

"I must control my temper." What their handwriting shows is that they are not managing to.

Now, since when have we noticed this?

A little book from Bologna

In 1622, in Bologna, a university professor named Camillo Baldi published a little book with a very long title, as was the custom then: *Treatise on how, from a letter, one may know the nature and qualities of the writer*. It is, as far as we know, the first detailed study of the idea that runs through this whole book: that the way someone writes says something about who they are.

Baldi had no method and no school. He had an intuition and enough curiosity to put it in writing. Almost two and a half centuries would pass before anyone turned that intuition into a discipline.

FIGURE 5



Three centuries of graphology by eye: from Baldi's first intuition to Pulver's symbolic map. They all worked with the same instrument: the human gaze.

A priest who looked at stones, plants and letters

Jean-Hippolyte Michon was born in 1806 in a village in Corrèze, in central France. He was ordained a priest in 1830, but his true vocation was that of an observer. He studied the Gallo-Roman monuments of the Charente region and wrote a treatise on them. In 1850 he traveled to the Middle East on a scientific mission, as an archaeologist and as a botanist.

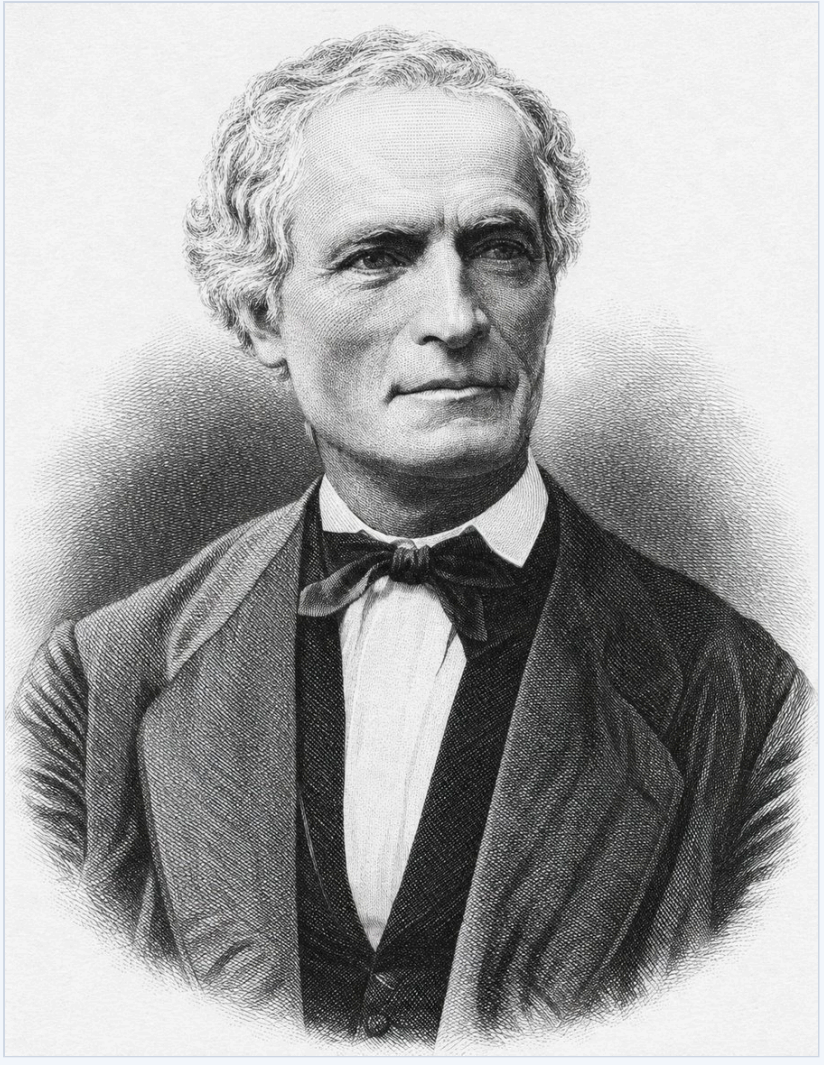
That detail is worth pausing on. A botanist of his time would go out into the field, collect a plant, draw it carefully, note its features and compare it with others until he could classify it. Michon did exactly that with handwriting. For years he collected letters, signatures and manuscripts, noting which way of writing seemed to go with which way of being.

He was not a comfortable man for the Church. He left the formal exercise of the priesthood in 1842, and in 1860 he published a book on the renewal of the Church that ended up on the Index of Forbidden Books. Nor was he comfortable for the occultists. In 1868 he met Adolphe Desbarrolles, a palmist who read destiny in the lines of the hand, and they decided to write about handwriting together. The book came out in 1872, *The Mysteries of Handwriting*, but Michon opposed his partner's esoteric approach. He did not want to divine destiny: he wanted to observe.

On 18 November 1871 he published the first issue of a journal, the *Journal des Autographes*, and in its pages a new word appears for the first time: **graphology**. Four years later, in 1875, he presented his *System of Graphology*, and in 1878 a *Practical*

Method. He traveled through France and other European cities giving lectures. He died in 1881.

FIGURE 6



Jean-Hippolyte Michon (1806-1881), in an engraving of the period. Priest, archaeologist, botanist and the first to call the study of handwriting "graphology".

Michon's contribution was enormous, and it had a clear limit. His system worked like a dictionary of signs: one feature of the handwriting corresponded to one feature of character. It was orderly, teachable and easy to apply. And for that very reason it was fragile, because a person is not a sum of loose signs.

The dentist who brought order

The one who saw that limit was a dentist. Jules Crépieux-Jamin was born in Arras in 1859, practiced in Rouen and devoted his entire life to graphology. He admired Michon, studied him thoroughly and corrected him.

In 1888 he published *Handwriting and Character*, and over the years he organized the signs Michon had described into seven great genera: dimension, form, pressure, speed, direction, order and continuity. His classification came to include 175 signs. It was, for the first time, a complete list of things to look at in a handwriting, one by one.

But his most important idea was not the list. It was the realization that **a sign has no fixed value**. What it means depends on the other traits that accompany it in the same handwriting. Strong pressure does not say the same thing in an orderly handwriting as in a chaotic one. With that idea, graphology stopped being a dictionary and began to be a method of analysis.

Keep that list of 175 signs in mind. Combined with each other, they yield more possible handwritings than there are atoms in

the universe, and in the last chapter I will show you the math. More than a century later, a similar list, but in an Excel spreadsheet, was going to change the course of this story.

The philosopher of rhythm

While the French were classifying, in Germany someone was looking at handwriting from another place. Ludwig Klages was born in Hanover in 1872. In 1896 he took part in founding the German Graphological Society, and in 1917 he published his main work on the subject, *Handwriting and Character*.

Klages was a complex thinker, and several of his ideas outside graphology have been heavily criticized. As far as we are concerned here, his contribution was to look at handwriting as a whole before looking at it as a set of parts. He is associated with two concepts that are still alive. The first is **form level**: the overall impression of harmony, originality and vitality of a handwriting, which colors the reading of all its details. The second is **rhythm**: the living pulse of the movement, as distinct from mere mechanical regularity.

Klages saw handwriting as the trace of a movement. That intuition, which back then could only be appreciated by eye, is the same one that today makes it possible to measure stroke pressure. We will come back to it in chapter 9.

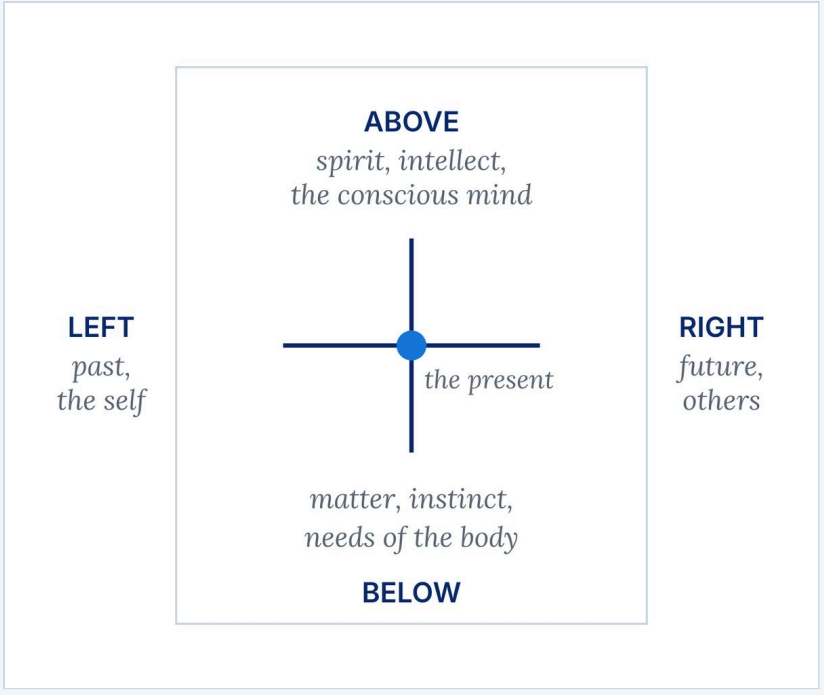
The man who drew a cross

The fourth character is Swiss. Max Pulver was born in Bern in 1889 and died in Zurich in 1952. He was a writer, philosopher,

psychoanalyst and graphologist, and in 1950 he founded the Swiss Graphological Society. In 1931 he published *The Symbolism of Handwriting*, influenced by the ideas of Carl Gustav Jung.

Pulver proposed something simple and powerful: to look at the page as a space with meaning. He imagined a cross over it. At the top was the spiritual, the intellectual, the conscious. At the bottom, the material, the instinctive, the needs of the body. On the left, the past and the self. On the right, others and the future. In the center, the present.

FIGURE 7



Max Pulver's symbolic cross. The page stops being a neutral background and becomes a space with meaning. If the position of a stroke means something, then it can also be measured.

His most quoted sentence sums it all up: "**Whoever writes creates their own portrait.**"

Pulver's cross is still taught in every school of graphology. And it has a consequence he could not have foreseen. If the page is a space with meaning, then the position of each stroke in that space is a piece of data. And data, sooner or later, can be measured.

Four perspectives and one instrument

Baldi had the intuition. Michon gave it a name and a system. Crépieux-Jamin gave it order and context. Klages gave it a holistic view and the idea of movement. Pulver gave it a map.

They were brilliant men, and many of their observations are still useful. But they all worked with the same instrument: the human eye, sometimes aided by a magnifying glass and a ruler. Everything they said passed through the perception of someone who looked at a page and decided what they saw.

That instrument is extraordinary. It is also the protagonist of the next chapter, because it has a problem that none of them could solve with the tools of their time.

This is the end of the sample.
The story continues for thirteen more chapters.

Want to know what happens next?

Thirteen chapters to go: the black pixels, the study with the MBTI and the NEO-PI-R, stroke pressure, the AI that writes by hand and what went wrong. All with real data.

I want the full book

Reserve without paying · Preorder: US$ 9.99 · €9.99